

OHNISHI**Application No. 09/809,095****Response to Office Action dated November 24, 2003****Amendments to the Specification:**

Please replace the paragraph beginning on page 1, line 3 with the following amended paragraph:

A1 The present invention generally relates to an operation method for processing data files ~~file~~ using icons which enables a GUI (Graphical User Interface) in an image processing apparatus.

Please replace the paragraph beginning on page 1, line 8 with the following amended paragraph:

A2 Conventionally, in image processing apparatuses, operations using icons which enable excellent GUIs have been available. In recent years, these image processing apparatuses more and more deal with data files ~~file~~ of large volume such as images with their improvements in processing power. For example, Japanese Unexamined Patent Publication No. 19669/1994 (*Tokukaihei 6-19669* published on January 28, 1994) discloses a typical prior art operation method for processing data files ~~file~~ of large volume. In this method, reduced-size images called "thumbnail" images, which allow a user to identify the contents of data files, are displayed, and using the reduced-size images as icons, a function as desired such as print, transmission, etc., is selected by performing a drag-and-drop operation on a reduced-size image directly, and the data file is processed with the selected function.

Please replace the paragraph beginning on page 2, line 9 with the following amended paragraph:

A3 According to the foregoing method of processing data files ~~file~~, it is possible for a user to ascertain the contents or intended use of the data files based on the reduced-size images without the need of opening each data file on the screen using application software, and therefore an improved operability can be achieved.

Please replace the paragraph beginning on page 2, line 15 with the following amended paragraph:

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A4
However, the foregoing conventional methods have presented the user with several difficulties when processing a large number of data files. For example, each icon of reduced-size image becomes too small and the image quality becomes too low for a user to see the details, and it is therefore difficult for the user to identify the contents of the original data file. In response, each icon of reduced-size image may be displayed ~~displaced~~ in larger size. However, in this case, other problems arise. For example, all the icons of reduced-size images cannot be displayed at one time, or an icon may be positioned over some of the function icons while a drag-and-drop operation is being performed, which presents a user with difficulties in selecting a function icon as desired. Furthermore, when adopting larger size icons of reduced-size images, a larger amount of data needs to be processed for a display in a drag operation.

Please replace the paragraph beginning on page 3, line 8 with the following amended paragraph:

A5
It is an object of the present invention to provide an operation method for processing data files ~~file~~ which permits drag-and-drop operations to be performed with ease while ensuring the visibility of reduced-size images.

Please replace the paragraph beginning on page 3, line 13 with the following amended paragraph:

A6
In order to achieve the above object, an operation method for processing data files ~~file~~ of the present invention, is characterized by including the steps of:

Please replace the paragraph beginning on page 6, line 17 with the following amended paragraph:

A7
As illustrated in Figure 1(a), upon activating this software for processing data files ~~file~~, the information processing apparatus displays file folders F1, F2, F3 and F4 for data files at the left end side of a screen.

Please replace the paragraph beginning on page 6, line 21 with the following amended paragraph:

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A8 With this screen, for example, assume a ~~assumed~~ user selects two data file icons as desired from the data folder F1 by clicking, and performs drag-and-drop operations of these icons on the screen. Then, reduced-size images X1, X2 corresponding to the selected data files are displayed respectively at positions where these icons are dropped. In this state, file icons A1, A2 corresponding to the reduced-size images X1, X2 are displayed respectively at predetermined distance from the reduced-size images X1 and X2.

Please replace the paragraph beginning on page 7, line 7 with the following amended paragraph:

A9 Similarly, assume a ~~assumed~~ user selects a data file icon as desired from the data folder F2 by clicking, and performs a drag-and-drop operation of this icon on the screen. Then, a reduced-size image Y1 corresponding to the selected data file is displayed, in the meantime, the file icon A3 corresponding to the reduced-size image Y1 is displayed.

Please replace the paragraph beginning on page 9, line 21 with the following amended paragraph:

A10 In Figure 1(a) through Figure 2(b), in the state where the highlighted file icon a1 at the original position, i.e., the position before being dragged has moved to a position more than a predetermined distance apart from the current position of the reduced-size image as indicated by the file icons ~~icon~~ a11, a12, a13, an icon return space (to be described later) is displayed. With this display, when the file icon a1 is dropped in the icon return space, the file icon a1 is moved back to its original display position without moving the associated reduced-size image X1.

Please replace the paragraph beginning on page 10, line 6 with the following amended paragraph:

A11 The foregoing icon return space will be explained in detail ~~details~~ in reference to Figure 3(a) and Figure 3(b). As illustrated in Figure 3(a), assume ~~assumed~~ an interval in the x-axis direction between the right side of the reduced-size image X1 and the left side of the file icon A1 is a predetermined interval S, the coordinates of the upper left vertex of the reduced-size image are (Ptx, Pty), and the width and the height of the reduced-size image X1 are Stx and Sty, then

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A11 the coordinates (Pix, Piy) of the upper left vertex of the file icon A1 being dragged are $(Ptx + Stx + S, Pty + Dry)$ ~~$(Ptx + Ptx + S, Pty + Dry)$~~ . It is assumed in this example that the origin is located at the upper left position in the Figures 3(a) and 3(b), and Dry has a predetermined value.

Please replace the paragraph beginning on page 12, line 14 with the following amended paragraph:

A12 Figure 5 is a flowchart explaining the foregoing operation for processing the data file of the present embodiment. First, in STEP 0, a reduced-size image for use in identifying the contents of the data file, and a file icon associated with the reduced-size image are provided as a pair with at a predetermined interval between them, the file icon having a smaller area than the reduced-size image. In STEP 1 S1, it is determined whether or not a click has been made. If it is determined that the click has not been made, the process is terminated. On the other hand, if it is determined that the mouse click has been performed, the process proceeds to STEP 2 where it is determined if a file icon is displayed at a clicked position. If not in STEP 2, the process is terminated. On the other hand, if it is determined that a file icon is displayed at the clicked position, the process proceeds to STEP 3 where the clicked file icon is changed to a highlighted file icon such as an icon in different color or a flashing icon. In STEP 4, it is determined if the mouse button ~~bottom~~ is held depressed, i.e., a drag operation is being performed. If it is determined that the drag operation is being performed, the process proceeds to STEP 5 S5. On the other hand, if it is determined that the drag operation is not being performed, the process proceeds to STEP 21 S21.

Please replace the paragraph beginning on page 18, line 13 with the following amended paragraph:

A13 According to the foregoing structure, during the high-speed drag operation on the file icon to the desired dropped position, only a file icon of a small area is displayed. Further, the frame is displayed only when a user ~~use~~ performs a precise positioning of the drop position to allow him to recognize the size of the reduced-size image. It is therefore possible to reduce an amount of data to be processed for a preparation of display image as compared to the case of

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A13

performing a drag operation on the reduced-size image directly which is larger in size than the file icon, and also possible to achieve visibility.

Please replace the paragraph beginning on page 18, line 25 with the following amended paragraph:

A14

The operation method for processing data files file of the present invention may be arranged such that when the file icon is dropped at a position where the function icon representing the kind of the function to be applied to the data file is not displayed, the display position of the corresponding reduced-size image is changed by moving it to a position at a predetermined interval from the dropped position of the file icon.